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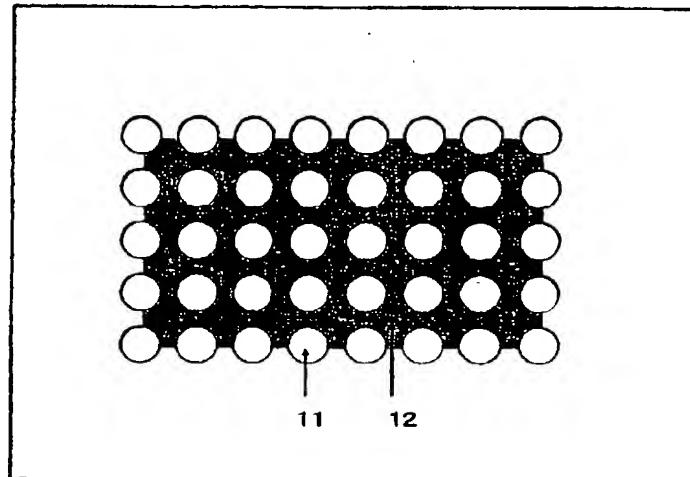
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(54) Title: MAGNETIC SUBSTANCE WITH MAXIMUM COMPLEX PERMEABILITY IN QUASI-MICROWAVE BAND AND METHOD FOR PRODUCTION OF THE SAME

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permeability  $\mu''$  in a frequency range of 0.1-10 gigahertz (GHz).

(57) Abstract: A magnetic substance having the maximum value of complex permeability in quasi-microwave range is provided for suppressing a high frequency noise in a small-sized electronic apparatus. The magnetic substance is of a magnetic composition comprising M, X and Y, where M is a metallic magnetic material consisting of Fe, Co, and/or Ni, X being element or elements other than M and Y, and Y being F, N, and/or O. The M-X-Y magnetic composition has a concentration of M in the composition so that said M-X-Y magnetic composition has a saturation magnetization of 35-80 % of that of the metallic bulk of magnetic material comprising M alone. The magnetic composition has the maximum  $\mu''_{\max}$  of complex